

WHAT IS CLAIMED IS:

1. An electromagnetic wave absorbent comprising:

an insulative resin operable as a bonding agent;

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a plurality of magnetic powders dispersed into the insulative resin, the magnetic powders having substantially a predetermined plane shape and predetermined thickness.

10 2. The electromagnetic wave absorbent according to claim 1, wherein each of the magnetic powders comprises Ni-Fe alloy containing Fe 15 to 55 wt%.

15 3. The electromagnetic wave absorbent according to claim 2, wherein each of the magnetic powders comprises Ni-Fe alloy containing Fe 17 to 23 wt%.

20 4. The electromagnetic wave absorbent according to claim 1, wherein a thickness of each of the magnetic powders is regulated within a range of  $\pm 15\%$  dispersion of the predetermined thickness.

25 5. The electromagnetic wave absorbent according to claim 1, wherein a thickness of any portion of each

powders is regulated within a range of  $\pm 10\%$  dispersion of the predetermined thickness.

6. The electromagnetic wave absorbent according  
5 to claim 1, wherein an area of the plane shape of the magnetic powders is regulated within a range of  $\pm 10\%$  dispersion therebetween.

7. The electromagnetic wave absorbent according  
10 to claim 1, wherein the magnetic powders comprise metallic soft magnetic material.

8. The electromagnetic wave absorbent according  
15 to claim 1, wherein the plane shape of the magnetic powders is circular.

9. The electromagnetic wave absorbent according  
to claim 1, wherein the plane shape of the magnetic powders is elliptical.

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10. The electromagnetic wave absorbent according  
to claim 1, wherein a space factor of the magnetic powders in the electromagnetic wave absorbent is within a range of 15 to 40 vol%.

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11. The electromagnetic wave absorbent according to claim 1, wherein average crystal grain diameters of the magnetic powders are 100 nm or smaller.

5 12. The electromagnetic wave absorbent according to claim 1, wherein each of the magnetic powders are flat in shape.

10 13. The electromagnetic wave absorbent according to claim 1, wherein the magnetic powders are formed with any one kind of metals Ni, Fe and Co, and at least one kind of P, S and C.

15 14. The electromagnetic wave absorbent according to claim 1, wherein the magnetic powders are formed with an alloy of two kinds or more of metals including at least one kind of Ni, Fe and Co, and at least one kind of P, S and C.

20 15. The electromagnetic wave absorbent according to claim 1, wherein the magnetic powders is simultaneously formed with an alloy of two kinds or more of metals including at least one kind of Ni, Fe and Co by the electroplating.

25 16. A method for producing magnetic powders for

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an electromagnetic wave absorbent, wherein the magnetic powders are dispersed into an insulative resin, comprising the steps of:

5 preparing a plating mold pattern formed with an electrode range corresponding to a predetermined plane shape of the magnetic powders, and an insulative range surrounding a periphery of the electrode range;

10 precipitating a film in the electrode range through electroplating using the plating mold, wherein the electrode range acts as a cathode; and

15 peeling the magnetic film from the plating mold to obtain the magnetic powders.

17. The method for producing magnetic powders for an electromagnetic wave absorbent according to claim 16, wherein the process further comprises the steps of:

20 dispersing the obtained magnetic powders into an insulative resin and mixing; and

extruding the mixed insulative resin and magnetic powders.

18. The method for producing magnetic powders for an electromagnetic wave absorbent according to claim 16, wherein the process further comprises the steps of:

25 adding organic additives in a plating liquid used

by the electroplating of the magnetic material for controlling a size of a crystal grain in the magnetic film.

5           19. The method for producing the magnetic powders according to claim 16, wherein each of the magnetic powders comprises metallic soft magnetic material.

10           20. An electromagnetic wave absorbent comprising:

an insulative resin operable as a bonding agent; and

a plurality of magnetic powders dispersed into the insulative resin, the magnetic powders having a predetermined plane shape and predetermined thickness,

15           the electromagnetic wave absorbent manufactured by a process comprising the steps of:

preparing a plating mold pattern formed with an electrode range corresponding to a predetermined plane shape of the magnetic powders, and an insulative range surrounding a periphery of the electrode range;

precipitating a film in the electrode range through electroplating using the plating mold, wherein the electrode range acts as a cathode; and

25           peeling the magnetic film from the plating mold to obtain the magnetic powders.

21. The electromagnetic wave absorbent comprising according to claim 20,

wherein the process further comprises the steps of:

5 dispersing the obtained magnetic powders into an insulative resin and mixing; and

extruding the mixed insulative resin and magnetic powders.

10 22. The electromagnetic wave absorbent comprising according to claim 20,

wherein the process further comprises the steps of:

15 adding organic additives in a plating liquid used by the electroplating of the magnetic material for controlling a size of a crystal grain in the magnetic film.

23. The method for producing the magnetic powders according to claim 20, wherein each of the magnetic powders 20 comprises metallic soft magnetic material.

24. The electromagnetic wave absorbent according to claim 20, wherein the magnetic powders are formed with any one kind of metals Ni, Fe and Co, and at least one 25 kind of P, S and C.

25. The electromagnetic wave absorbent according to claim 20, wherein the magnetic powders are formed with an alloy of two kinds or more of metals including at least 5 one kind of Ni, Fe and Co, and at least one kind of P, S and C.

10 26. The electromagnetic wave absorbent according to claim 20, wherein the magnetic powders is simultaneously formed with an alloy of two kinds or more of metals including at least one kind of Ni, Fe and Co by the electroplating.

15 27. The electromagnetic wave absorbent according to claim 20, wherein each of the magnetic powders comprises Ni-Fe alloy including Fe 15 to 55 wt%.